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**ANTECEDENTS AND IMPACT OF AIS USAGE AMONGST  
JORDANIAN SMES: MODERATING EFFECTS OF  
ENVIRONMENTAL UNCERTAINTY AND FIRM SIZE**

**ABD ALWALI LUTFI**



**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
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**ANTECEDENTS AND IMPACT OF AIS USAGE AMONGST JORDANIAN  
SMEs: MODERATING EFFECTS OF ENVIRONMENTAL UNCERTAINTY  
AND FIRM SIZE**

**By**



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**UUM**  
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**Thesis Submitted to  
Tunku Puteri Intan Safinaz School of Accountancy (TISSA-UUM),  
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in Fulfilment of the Requirement for the Degree of Doctor of Philosophy**



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## ABSTRACT

An effective use of the Accounting Information System (AIS) facilitates firms to sustain their competitiveness by providing timely, accurate and reliable financial information for more informed business decisions. Despite extensive government efforts, the usage of AIS amongst the Small and Medium-sized Enterprises (SMEs) in Jordan is relatively low and thus limiting the impact on firms' effectiveness. Furthermore, previous studies regarding the antecedents and impact of AIS usage are somewhat inconsistent. Thus, the purpose of this study was to propose an integrated model utilizing the Technological, Organizational, and Environmental (TOE) framework and the Resource-based View (RBV) theory to better explain the antecedents affecting AIS usage and its impact on AIS effectiveness amongst Jordanian SMEs. This study hypothesized seven factors affecting AIS usage based on the TOE framework. Meanwhile, RBV explained the relationship between AIS usage and AIS effectiveness as well as the moderating effects of environmental uncertainty and firm size on such relationships. Using the quantitative approach, this study employed a self-administered questionnaire survey on 741 owners of SMEs listed in the Amman Chamber Industry, of which 186 responses were usable for analysis (25% response rate). The Partial Least Squares (PLS) results revealed significant influence of compatibility (technological factor), owner/manager commitment and organizational readiness (organizational factors), as well as competitive pressure and government support (environmental factors) on AIS usage. Furthermore, compatibility demonstrated the strongest influence on AIS usage followed by competitive pressure. The results further demonstrated a positive and significant effect of AIS usage on AIS effectiveness. Finally, the findings only ascertained considerable moderating effect of firm size. Apart from extending the body of knowledge by providing a comprehensive model to explain how several interrelated factors influence AIS usage and its impact on AIS effectiveness, the results offer insights on how firms could improve the use of AIS for better firms' performance.

**Keywords:** AIS usage, AIS effectiveness, TOE framework, RBV theory.

## ABSTRAK

Penggunaan Sistem Maklumat Perakaunan (AIS) yang efektif membantu firma untuk bersaing di dalam persekitaran yang kompetitif. AIS menyediakan maklumat kewangan yang menepati masa, betul dan boleh dipercayai bagi tujuan membuat keputusan. Namun, tahap penggunaan AIS dalam kalangan Industri Kecil dan Sederhana (SMEs) di Jordan dilaporkan masih rendah. Ini mengakibatkan AIS tidak memberikan impak optimum terhadap prestasi firma. Malahan, dapatan kajian lepas yang berkaitan faktor dan impak AIS terhadap prestasi firma adalah tidak konsisten. Oleh itu, kajian ini mencadangkan Model Integratif Berdasarkan Rangka Kerja Teknologi, Organisasi dan Persekitaran (TOE) serta Teori Perspektif Berasaskan Sumber (RBV) bagi menjelaskan faktor yang mempengaruhi Penggunaan AIS serta impaknya terhadap Keberkesanan AIS dalam kalangan SMEs di Jordan. Kajian ini mengetengahkan tujuh hipotesis berkaitan faktor yang mempengaruhi Penggunaan AIS berdasarkan kerangka TOE. Manakala, teori RBV menjelaskan hubungan antara Penggunaan AIS dan Keberkesanan AIS serta pengaruh moderasi faktor Ketidakpastian Persekitaran dan Saiz Firma terhadap hubungan berkenaan. Kajian ini menggunakan pendekatan kuantitatif dengan menggunakan kajian soal selidik terhadap 741 pemilik SMEs yang tersenarai di dalam 'Amman Chamber Industry'. Namunhanya 186 soal selidik boleh diguna pakai untuk analisis dengan kadar maklum balas adalah 25%. Pendekatan Kuasa Dua Terkecil Separa (PLS) mendapati tahap Keserasian (faktor teknologi), Komitmen Pemilik/Pengurus dan Kesyediaan Organisasi (faktor organisasi), Tekanan Persaingan dan Bantuan Kerajaan (faktor persekitaran) mempunyai kesan signifikan terhadap Penggunaan AIS dengan tahap Keserasian mempunyai pengaruh terkuat diikuti Tekanan Persaingan. Seterusnya, didapati Penggunaan AIS mempunyai hubungan yang positif dan signifikan terhadap Keberkesanan AIS. Manakala, hanya Saiz Firma memberikan kesan moderasi yang signifikan terhadap hubungan tersebut. Kajian ini menyumbang kepada bidang ilmu dengan mengetengahkan kerangka konseptual yang lebih komprehensif untuk menjelaskan perkaitan antara faktor yang mempengaruhi tahap penggunaan AIS serta kesannya terhadap keberkesanan AIS di dalam sesebuah firma. Dapatan kajian ini juga turut menjadi panduan kepada SMEs dalam usaha mempertingkatkan penggunaan AIS bagi mencapai prestasi firma yang lebih baik.

**Kata kunci:** penggunaan sistem maklumat perakaunan, keberkesanan sistem maklumat perakaunan, model teknologi-organisasi-persekitaran, teori perspektif berasaskan sumber.



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## RELATED PUBLICATION

- 1- Lutfi, A. A., Idris, K. M., & Mohamad, R. (2016). The Influence of Technological, Organizational and Environmental Factors on Accounting Information System Usage among Jordanian Small and Medium-sized Enterprises. *International Journal of Economics and Financial Issues*, 6(7S), 240-248.
- 2- Lutfi, A. A., Idris, K. M., & Mohamad, R. (2017). AIS Usage Factors and Impact among Jordanian SMEs: The Moderating Effect of Environmental Uncertainty. *Advanced Research in Business and Management Studies*. 6(1), 24-38.



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## LIST OF ABBREVIATIONS

ACI	Amman Chamber of Industry
AIS	Accounting Information System
AMOS	Analysis of Moment Structures
AVE	Average Variance Extracted
CA	Cronbach's Alpha
CAIS	Computer Accounting Information System
CEO	Chief Executive officer
CMV	Common Method Variance
CR	Composite Reliability
DOI	Diffusion of Innovation theory
E- Business	Electronic Business
E- Commerce	Electronic Commerce
EDI Electronic	Data Interchange
E-government	Electronic government
E-procurement	Electronic procurement
ERP	Enterprise Resource Planning
EU	Environmental Uncertainty
GDP	Gross Domestic Product
GITR	Global Information Technology Report
HKJ	Hashemite Kingdom of Jordan
IBPS	Interorganizational Business Process Standards
ICT	Information and Communication Technology

IEBT	Internet/e-business technologies
IS	Information System
IT	Information Technology
IT/IS	Information Technology/Information Systems
MIS	Management Information System
PhD	Doctor of Philosophy
PLS	Partial Least Squares
Q2	Construct Cross validated Redundancy
R2	R-squared values
RBV	Resource Based View
SEM	Structural Equation Modelling
SMEs	Small and Medium-Sized Enterprises
SPSS	Statistical Package for the Social Sciences
SWT	<i>Subhanahu Wa Ta'ala</i>
TOE	Technology-Organizational-Environmental framework
UN	United Nation
WASME	World Association for SMEs
WB	World Bank
WIPO	World Intellectual Property Organization
GCR	Global Competitiveness Report
MOICT	Ministry of Information and Communications Technology
TCA	Telecommunications Commission Authority

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background**

SMEs contribute significantly to both the social and economic development and growth of most developing countries (Olusola & Oluwaseun, 2013). Due to their capacity for improving economic growth and improve human welfare and the national output of a country, SMEs have been recognized as the main sustenance of the economy (Akinguola, 2006; Yahya, Nair, & Piaralal, 2014). This sector plays considerable roles in supporting higher Gross Domestic Product (GDP) and greater export activities and is a key source of new jobs, employment opportunities and the reduction of poverty (Kiveu, 2013; World Association for SMEs [WASME], 2006). As they are usually domestic-oriented business, SME business activities have direct effects on the national economy (Kotelnikov & Kim, 2007). Considering the imperative roles of SMEs in both developing and developed economies, many global agencies such as the World Bank (WB), United Nations (UN), World Intellectual Property Organization (WIPO), and the Organization for Economic and Cooperation and Development (OECD) have established guidelines enabling such firms to play a significant role in the worldwide economic system (Mohamad, 2012).

Like SMEs in other countries, Jordanian SMEs are considered to be the backbone and significant generator of the Jordanian economy (Al-Hyari, Al-Weshah, & Alnsour, 2012; Alshir'ah, Abdul-Jabbar, & Samsudin, 2016). This sector accounts for more

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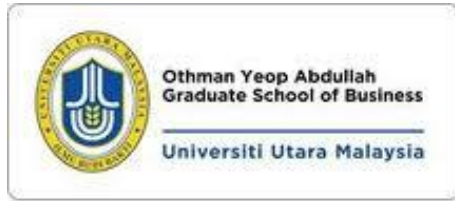
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## Appendix A

### *The English and Arabic Questionnaires*



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Dear Prof / Reader / Dr / Mr / Mrs / Ms,

#### **ACADEMIC RESEARCH QUESTIONNAIRE**

Dear Manager,

I am Ph.D. student at the University Utara Malaysia, currently preparing my doctoral project on

#### **ANTECEDENTS AND IMPACTS OF AIS USAGE AMONGST SMEs: THE MODERATING EFFECT OF FIRM SIZE AND ENVIRONMENT UNCERTAINTY**

Small and Medium-sized Enterprises (SMEs) have prominent roles in national agenda. In line with that, the government, through various initiatives, strongly encourages this sector to enhance its productivity by deploying the usage of Accounting Information System (AIS) solutions. In fact, these solutions do not use intensively by all SMEs. Thus, it is important to recognize factors affecting AIS usage as well as its impact amongst SMEs.

The main aim of this study is to examine AIS usage and AIS effectiveness among SMEs in Jordan. We really appreciate your cooperation in making this research a success. The surveys take between **10 - 15 minutes**. Please spare some of your valuable time to complete it.

All your response will be kept fully confidential by School of Accounting in Universiti Utara Malaysia. If you have any questions about the questionnaire, or would you like to see the final results, feel free to contact the researcher.

Thank you for participating in this study. Your cooperation is highly appreciated.

The questionnaire consists of **FIVE (5)** major parts, namely: (1) Company Information, (2) AIS usage, (3) AIS usage impacts (AIS effectiveness), (4) factors influencing AIS usage, and (5) Personal Information.

AIS is defined in this study as ‘**use of computer hardware and computer software applications to support business operations, organizational management and decision making processes**’.

**Yours sincerely**

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### Operational Definition of Study's Variables

Variables	Operational definition
Relative Advantage	The degree to which AIS is perceived as being better than the idea it supersedes.
Compatibility existing	The degree to which AIS is perceived as consistent with the values, past experiences, and needs of potential users.
Owner/Manager Commitment	The extent of commitment and resource support from top organization's management for AIS usage.
Organization readiness	The availability of the needed organizational resources for the usage of AIS.
Competitive Pressure	The Pressure derived from the advantages that competitors enjoy when they use technology, in which a firm has to consider whether or not to follow its competitors, or threat of losing competitive advantage, forcing firms to use AIS.
Government Support	The assistance provided by the authority to encourage the spread and use of AIS in businesses.
Networking	Perceived importance of social network as a source of advice to facilitate the usage of AIS.
AIS Usage	The extent to which is using computer hardware and software applications to support operations, management, and decision making in the business to conduct value and impact.
AIS Effectiveness	The extent to which AIS actually contributes to achieving organizational goals.
Environmental Uncertainty (EU)	Manager's perceptions regard the recurrence of changes and unpredictability of marketing practices, production technology, competitors and service demand.
Firm Size	The number of employees working in the firm.

## QUESTIONNAIRE

### PART (1): CURRENT STATUS of AIS USAGE

1. Now, we would like to learn about the current level of AIS usage. Please specify intensity of computer AIS usage for each of the following applications in your firm.

		Not used at all 1	Not used 2	Sometime Used 3	extensively used 4	Very extensively used 5
1	General Ledger	1	2	3	4	5
2	Credit Transactions	1	2	3	4	5
3	Inventory	1	2	3	4	5
4	Budgeting	1	2	3	4	5
5	Budget Variance Analysis	1	2	3	4	5
6	Trial Balance	1	2	3	4	5
7	Point-of-sale (POS)	1	2	3	4	5
8	Income Statement	1	2	3	4	5
9	Balance Sheet	1	2	3	4	5
10	Salary	1	2	3	4	5
11	Financial accounting	1	2	3	4	5
12	Ownership statement	1	2	3	4	5



## PART (2): AIS EFFECTIVENESS

2. The following statements aim to assess the level of effectiveness of your computerized AIS. Please tick [/] to indicate the most appropriate number on the scale ranging from 1 = strongly disagree to 5 = strongly agree.

**Our computerized AIS achieves .....**

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
1. High levels of Systems Quality (e.g. system reliability, features and functions, response time).	1	2	3	4	5
2. High levels of Information Quality (e.g. information clarity, completeness, usefulness, accuracy).	1	2	3	4	5
3. High levels of Information Use (e.g. regularity of use, number of enquiries, duration of use, and frequency of reports requests).	1	2	3	4	5
4. High levels of User Satisfaction (e.g. overall satisfaction, enjoyment, difference between information needed and received and software satisfaction).	1	2	3	4	5
5. High degree of positive Individual Impact (e.g. design effectiveness, problem identification, improved individual productivity).	1	2	3	4	5
6. High levels of positive Organizational Impact (e.g. contribution to achieving goals, cost/benefit ratio, overall productivity gains, and service effectiveness).	1	2	3	4	5

### PART (3): FACTORS INFLUENCING AIS USAGE

This part assesses factors that potentially influence your company's decision to intensify use AIS. Kindly provide your assessment using a five-point scale specified respectively.

#### 3. Relative Advantage

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
1. Using AIS can reduce our operation cost.	1	2	3	4	5
2. Using AIS can reduce our operation time.	1	2	3	4	5
3. Using AIS <b>can't</b> provide useful information for decision making.	1	2	3	4	5
4. Using AIS <b>don't</b> improve the quality of our operations.	1	2	3	4	5
5. Using AIS enhance the effectiveness of our firm's operations.	1	2	3	4	5
6. Using AIS <b>don't</b> enable us to perform our operations more quickly.	1	2	3	4	5

#### 4. Compatibility

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
1. Using AIS is compatible with our business culture.	1	2	3	4	5
2. Using AIS is compatible with our business values.	1	2	3	4	5
3. Using AIS is compatible with our preferred work practices.	1	2	3	4	5
4. AIS is <b>not</b> compatible with our existing information infrastructure.	1	2	3	4	5
5. AIS is <b>not</b> compatible with our firm's existing experience with similar systems.	1	2	3	4	5

### 5. Owner/managers Commitment

Please indicate the extent of your commitment in each of the following AIS development activity:

	Highly Not Involved 1	Not Involved 2	Neutral 3	Involved 4	Highly Involved 5
1. Determine the need for AIS solutions.	1	2	3	4	5
2. Selection of appropriate hardware and software.	1	2	3	4	5
3. Implementation of AIS related applications.	1	2	3	4	5
4. Solving problems since AIS implementation.	1	2	3	4	5
5. Planning for further developments in AIS usage.	1	2	3	4	5

### 6. Organization Readiness

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
1. We are financially ready to use AIS.	1	2	3	4	5
2. We have enough technological resources to use AIS.	1	2	3	4	5
3. Our employees <b>don't</b> have adequate knowledge to use AIS.	1	2	3	4	5
4. Our business values and norms would <b>not</b> prevent us from using AIS in our operations.	1	2	3	4	5
5. We <b>don't</b> have in-house expertise to use AIS.	1	2	3	4	5

### 7. Competitive Pressure

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
1. Our firm is <b>not</b> under pressure from competitors to use AIS.	1	2	3	4	5
2. Some of our competitors have already started using AIS.	1	2	3	4	5
3. Our competitors <b>don't</b> know the importance of AIS and are using it for operations.	1	2	3	4	5
4. Our firm experienced competitive pressure to implement AIS.	1	2	3	4	5
5. Our firm is affected by competitors in the local market.	1	2	3	4	5
6. Our firm is affected by competitors in the national market.	1	2	3	4	5

#### 8. Government Support

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
1. Government involvement with AIS usage function is strong.	1	2	3	4	5
2. Government is <b>not</b> interested in AIS usage function.	1	2	3	4	5
3. Government understands the importance of AIS usage.	1	2	3	4	5
4. Government <b>doesn't</b> support the AIS usage function.	1	2	3	4	5
5. Government considers AIS usage as a strategic resource.	1	2	3	4	5
6. Government <b>doesn't</b> understand AIS usage opportunities.	1	2	3	4	5
7. Government keeps the pressure on operating units to work with AIS.	1	2	3	4	5

8. Our firm is under pressure from government to use AIS.	1	2	3	4	5
9. The government is providing us with incentives to use AIS.	1	2	3	4	5
10. The government is active in setting up the facilities to enable AIS usage.	1	2	3	4	5

### 9. Networking

How do you assess the importance of each of the following social influence of advices on AIS usage?

Channels	Not important at all 1	Not important 2	Normal 3	Important 4	Highly Important 5
1. Friends	1	2	3	4	5
2. Family members/relatives	1	2	3	4	5
3. Staffs	1	2	3	4	5
4. My own knowledge/experience	1	2	3	4	5
5. Other business owner	1	2	3	4	5

### 10. Environmental Uncertainty (EU)

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
1. The actions of your competitors are easy to predict.	1	2	3	4	5
2. The demand for your product is <b>Unpredictable</b> .	1	2	3	4	5
3. To remain competitive, your firm must change its marketing practices very frequently.	1	2	3	4	5
4. The rate of technological evolution in your industry is <b>very slow</b> .	1	2	3	4	5
5. We are satisfied about the number of new products and services have been marketed	1	2	3	4	5

during the past 5 years in our company.					
6. The legal, economical, and political constraints surrounding our company have remained about the same.	1	2	3	4	5

#### PART (4): COMPANY INFORMATION

We would like some information about your company.

(Please check [/] on a box or write answer where appropriate)

11. What is the legal status of your company?

☐ Limited Company      ☐ Partnership      ☐ Sole Proprietorship

12. In which year was the firm established? ----

13. How many full-time employees, including managers, does your company employ? ---

14. In which category does your company belong? (please tick [/] the appropriate box):

☐ Textile, clothing and footwear      ☐ Electrical appliances  
☐ Plastic and rubber products      ☐ Food Products  
☐ Typing, paper and packing      ☐ Furniture and wooden products  
☐ Oil and gas industry (Transportation)      ☐ Chemical/pharmaceutical industry  
☐ Mining and quarrying      ☐ Tobacco and cigarettes  
☐ Iron, steel and aluminum industry      ☐ Building materials and construction  
☐ Other (please specify):-----

15. How many years has your company been using accounting applications?

☐ 2 years or less      ☐ 3 to 5 years  
☐ 6 to 10 years      ☐ over 10 years

## **PART (5): PERSONAL INFORMATION**

Please tick (/) or write your responses on the following questions that most accurately describe yourself.

**16.** What is your current position in the company?

☐ Chief Executive Officer

☐ Manager

☐ Senior manager

☐ other (please specify):-----

**17.** How long have you been in the current position? ----- Years

**18.** Please indicate your gender:

☐ Male

☐ Female

**19.** Please indicate your age range:

☐ Under 30

☐ 30 - 39

☐ 40-49

☐ 50 and above

**20.** Please indicate your highest level of education:

☐ Diploma or below

☐ Bachelor Degree

☐ Master's Degree

☐ PhD

**Thank you for participating in this survey.**



السلام عليكم ورحمة الله وبركاته

عزيزي المدير،

أنا طالب دكتوراه في جامعة أوتارا الماليزية، اقوم حاليا باعداد مشروع الدكتوراه تحت عنوان

**العوامل المؤثرة على استخدام نظم المعلومات المحاسبية واثرها اللاحق على فعاليتها نظم المعلومات المحاسبية في الشركات الصغيرة والمتوسطة في الاردن: تأثير حجم الشركة وبيئته عدم التاكيد**

في الواقع، المشاريع الصغيرة والمتوسطة الحجم لها دورهم و بارز في جدول الأعمال الوطني. وتماشيا مع ذلك، فإن الحكومة، ومن خلال مختلف المبادرات، تشجع بقوة هذا القطاع لتعزيز إنتاجيته عن طريق نشر استخدام نظم المعلومات المحاسبية (AIS). في الواقع، نظم المعلومات المحاسبية لا تستخدم بشكل مكثف من قبل جميع الشركات الاردنية الصغيرة والمتوسطة. وبالتالي، فمن المهم أن نتحقق وندرس العوامل التي تؤثر على استخدام نظم المعلومات المحاسبية فضلا عن تأثيره على الشركات الصغيرة والمتوسطة.

الهدف الرئيسي من هذه الدراسة هو دراسة العوامل المؤثرة على زياده وتكثيف استخدام نظم المعلومات المحاسبية واثرا لاستخدام على فعالية هذه النظم بين الشركات الصغيرة والمتوسطة في الأردن .

هذه الدراسة تعتمد كثيرا على تعاونك في انجازها و لقد تم اختيارك لانك تمثل الشريحة المستهدفة في البحث، وهذه الاستبانة لن تاخذ اكثر من 15 دقيقة من وقتك الثمين. و يعد الباحث ان جميع المعلومات المتوفرة في هذا الاستبيان سوف تعامل بخصوصية شديده و لن يتم نشر اي معلومه فيه الا ما يقوم به الباحث من تحليل وان اسم الاداره او الشخص لن يتم نشره.

ويتكون الاستبيان من خمسة (5) أجزاء رئيسية، وهي: (1) استخدام نظم المعلومات المحاسبية (2) أثر استخدام نظم المعلومات المحاسبية (فعالية نظم المعلومات المحاسبية) (3) العوامل المؤثرة في استخدام نظم المعلومات المحاسبية، (4) معلومات عن الشركة، و (5) المعلومات الشخصية .  
تعريف **نظم المعلومات المحاسبية** في هذه الدراسة بأنها "استخدام أجهزة الكمبيوتر وتطبيقات برامج الكمبيوتر لدعم العمليات التجارية، وإدارة المنظمة وعمليات صنع القرار."

لكم خالص الشكر و التحية،،،

إسم الطالب: عبدالوالي لطفي الخصاونه

الرقم الجامعي: 95613

البريد الالكتروني: abd\_alwale@hotmail.com

إشراف: بروفيسور د. كاميل ادريس عميد كلية الاقتصاد والعلوم الاداريه

د. روسلي محمد رئيس قسم نظم المعلومات المحاسبية والتدقيق



## الاستبانة

### الجزء الاول: الوضع الحالي لاستخدام البرامج المحاسبية المحوسبه

في هذا الجزء الرجاء الاجابه بإختيار مستوى المطابقه للجمله , فإذا كانت الجمله مطابقه للإجابة فيمكنك الاختيار بين الجزء الثاني :-

#### غير مستخدم مطلقا

(في حاله ان البرامج المحاسبية المستخدمه لا تحتوي على الوظيفة المقابله لها)

#### غير مستخدم

(في حاله ان البرامج المحاسبية المستخدمه تحتوي على الوظيفة المقابله لها ولكن

شركتكم لا تقوم

باعداد هذه الوظيفة)

#### مستخدم نادرا

(في حاله ان البرامج المحاسبية المستخدمه تحتوي على الوظيفة المقابله لها ولكن

شركتكم تقوم

باعداد هذه الوظيفة بشكل متقطع وعلى فترات طويله وليس بشكل دوري ومنتظم)

#### مستخدم على نطاق واسع

(في حال ان شركتكم تقوم باعداد هذه الوظيفة بشكل مكثف ومستمر بشكل دوري)

#### مستخدم على نطاق واسع جدا

(في حال ان شركتكم تقوم باعداد هذه الوظيفة بشكل مكثف ومستمر بشكل دوري

يومي او اسبوعي)

### الرجاء إختيار الرقم الاقرب الى اجابتك بوضع علامه (٨)

1. نرغب أن نعرف المستوى الحالي لاستخدام البرامج المحاسبية المحوسبه. يرجى تحديد مستوى استخدام

البرامج المحاسبية المحوسبه لاعداد كل من الوظائف و الانشطة التالية في شركتكم.

مستخدم على نطاق واسع جدا 5	مستخدم على نطاق واسع 4	مستخدم نادرا 3	غير مستخدم 2	غير مستخدم مطلقا 1	
					1. إعداد دفتر الأستاذ العام
					2. إعداد العمليات الائتمانية
					3. كشف تكلفه المخزون المنتج
					4. اعداد الموازنه
					5. كشف تحليل التباين
					6. إعداد ميزان المراجعة
					7. تحليل نقطه المبيعات
					8. اعداد قائمة الدخل
					9. إعداد الميزانيه العموميه (قائمة المركز المالي)
					10. النفقات والرواتب
					11. المحاسبه الماليه
					12. إعداد قائمة حقوق المالكين (راس مال المساهمين)

## الجزء الثاني: فعالية نظم المعلومات المحاسبية

2. هذا الجزء يهدف لتقييم فعالية البرامج المحاسبية المحوسبة في شركتكم، الرجاء الاجابة بإختيار مستوى المطابقة للجمله فإذا كانت الجمله مطابقة للإجابة فيمكنك الإختيار بين موافق بشده او موافق اما في حاله عدم الموافقه بين الاجابه و الجمله فيمكنك الإختيار بين غير موافق او غير موافق بشده اما في حاله عدم التأكد من الاجابه او ان المطابقة تتردد بين الموافقه او غير الموافقه فيمكنك إختيار غير متأكد.

نظم المعلومات المحاسبية المحوسبه في شركتنا **تعتبر فعاله عندما تحقق....**

غير موافق بشده 1	غير موافق 2	غير متأكد 3	موافق 4	موافق بشده 5	
1	2	3	4	5	1. مستوى عالي من جودة النظام (مثل: موثوقية النظام، الخصائص والوظائف، زمن الاستجابة للنظام)
1	2	3	4	5	2. مستوى عالي من جودة المعلومات (مثل: معلومات واضحة، مكتمله ووافيه، مفيدة، دقيقه)
1	2	3	4	5	3. مستوى عالي من استخدام المعلومات (مثل: إستخدام المعلومات بشكل منتظم، الاستفسار لمرات عديدة، مدة الاستخدام، تكرار طلب التقارير)
1	2	3	4	5	4. مستوى عالي من رضى المستخدم (مثل: الرضا العام عن عمل النظام، الإستمتاع باستخدام النظام، مدى الاختلاف بين المعلومات المطلوبه والوارده)
1	2	3	4	5	5. درجه عاليه من التأثير على الافراد بشكل ايجابي (مثل: تحسين إنتاجية الافراد، فعالية التصميم، تحديد المشاكل)
1	2	3	4	5	6. درجه عاليه من التأثير على المنظمه بشكل ايجابي (مثل: المساهمه في تحقيق الاهداف، نسبة التكاليف الى الإيرادات، تحسين الإنتاجية بشكل عام، جودة وفعالية الخدمة والمعلومات المقدمه)

## الجزء الثالث: العوامل المؤثره في استخدام نظم المعلومات المحاسبية

هذا الجزء لتقييم العوامل التقنيه والمؤسسيه والبيئيه المتوقع ان تؤثر على قرار الشركه **لتكثيف استخدام** البرامج المحاسبية المحوسبه. الرجاء إختيار الرقم الاقرب الى اجابتك بوضع علامه (١)

### 3. الفوائد المتوقعه

يقيس هذا العامل مستوى اعتقادكم للفوائد المتوقعه من استخدام نظم المعلومات المحاسبية بصوره مكثفه اكثر. ان استخدام شركتكم لنظم المعلومات المحاسبية يؤدي الى

غير موافق بشده 1	غير موافق 2	غير متأكد 3	موافق 4	موافق بشده 5	
1	2	3	4	5	1. يقلل من تكلفة التشغيل والعمليات لدينا.
1	2	3	4	5	2. يقلل من الوقت التشغيل والعمليات لدينا.
1	2	3	4	5	3. لا يوفر معلومات مفيدة لاتخاذ القرارات.
1	2	3	4	5	4. لا يحسن جوده التشغيل و العمليات لدينا.
1	2	3	4	5	5. يعزز فعالية التشغيل والعمليات لدينا.
1	2	3	4	5	6. لا يمكننا من أداء عملياتنا بسرعة أكبر.

#### 4. التوافق

يقيس هذا العامل مستوى اعتقادكم ان استخدام نظم المعلومات المحاسبية بصورة مكثفه متوافق مع شركتكم من النواحي الفنيه والتقنيه. ان استخدام شركتكم لنظم المعلومات المحاسبية

غير موافق بشده 1	غير موافق 2	غير متأكد 3	موافق 4	موافق بشده 5	
1	2	3	4	5	1. يتوافق مع ثقافة العمل في شركتنا.
1	2	3	4	5	2. يتوافق مع قيم العمل المرسومه في شركتنا.
1	2	3	4	5	3. يتوافق مع ممارسات وخطط العمل المفضله في شركتنا.
1	2	3	4	5	4. لا يتوافق مع البنيه التحتية لتكنولوجيا المعلومات والاجهزه الموجوده في شركتنا.
1	2	3	4	5	5. لا يتوافق مع خبره ومؤهلات الموظفين في شركتنا.

#### 5. التزام المالك\المدير

يقيس هذا العامل مستوى التزام ومساهمته المدير\المالك باستخدام نظم المعلومات المحاسبية بصورة مكثفه اكثر. ان مساهمه المالك\المدير فيمايلي :

لا اساهم مطلقا 1	لا اساهم 2	عادي 3	اساهم 4	اساهم بشكل كبير 5	
1	2	3	4	5	1. تحديد الحاجة إلى حلول نظم المعلومات المحاسبية.
1	2	3	4	5	2. اختيار الأجهزة والبرامج المحاسبية المناسبة.
1	2	3	4	5	3. استخدام التطبيقات المتعلقة ذات الصلة بنظم المعلومات المحاسبية.
1	2	3	4	5	4. حل المشاكل ذات الصلة منذ استخدام نظم المعلومات المحاسبية.
1	2	3	4	5	5. التخطيط لمزيد من التطور والتحسين فيما يتعلق باستخدام نظم المعلومات المحاسبية.

#### 6. جاهزية الشركه

يقيس هذا العامل مستوى جاهزية شركتكم لاستخدام نظم المعلومات المحاسبية بصورة مكثفه اكثر. ان استخدام نظم المعلومات المحاسبية بصورة مكثفه يكون عندما

غير موافق بشده 1	غير موافق 2	غير متأكد 3	موافق 4	موافق بشده 5	
1	2	3	4	5	1. يكون لدينا قدره ماليه لاستخدام نظم المعلومات المحاسبية.
1	2	3	4	5	2. يكون لدينا موارد تكنولوجيايه كافيه (مثل الاجهزه والموظفين) لاستخدام نظم المعلومات المحاسبية.
1	2	3	4	5	3. لا يوجد لدى الموظفين معرفه وخبره كافيه باستخدام نظم المعلومات المحاسبية.
1	2	3	4	5	4. تتوافق مع قيم وسياسات شركتنا.
1	2	3	4	5	5. لا يوجد موظفين مؤهلين لاستخدام نظم المعلومات المحاسبية.

## 7. الضغط التنافسي

يقيس هذا العامل الدرجة التي تتأثر بها شركتكم من قبل المنافسين لاستخدام نظم المعلومات المحاسبية بصورة مكثفه اكثر. ان استخدام نظم المعلومات المحاسبية بصورة مكثفه يكون بسبب

موافق بشده 5	موافق 4	غير متأكد 3	غير موافق 2	غير موافق بشده 1	
5	4	3	2	1	1. شركتنا لا تواجه ضغط من المنافسين.
5	4	3	2	1	2. بعض منافسينا يقوم باستخدام نظم المعلومات المحاسبية في اعمالهم.
5	4	3	2	1	3. المنافسين لشركتنا لا يدركون أهمية استخدام نظم المعلومات المحاسبية.
5	4	3	2	1	4. شركتنا تشهد ضغوط من المنافسين لاستخدام نظم المعلومات المحاسبية.
5	4	3	2	1	5. شركتنا تتأثر بالمنافسين في الاسواق المحلية فيما يتعلق باستخدام نظم المعلومات المحاسبية.
5	4	3	2	1	6. شركتنا تتأثر بالمنافسين في الاسواق العالمية فيما يتعلق باستخدام نظم المعلومات المحاسبية.

## 8. الدعم الحكومي

يقيس هذا العامل مستوى مساهمة الحكومة لدعم استخدام نظم المعلومات المحاسبية بصورة مكثفه اكثر. ان استخدام نظم المعلومات المحاسبية بصورة مكثفه يكون عندما

موافق بشده 5	موافق 4	غير متأكد 3	غير موافق 2	غير موافق بشده 1	
5	4	3	2	1	1. تكون مساهمة الحكومة قوية في مجال استخدام نظم المعلومات المحاسبية.
5	4	3	2	1	2. لا تولي الحكومة اهتماما باستخدام نظم المعلومات المحاسبية.
5	4	3	2	1	3. تدرك الحكومة أهمية استخدام نظم المعلومات المحاسبية.
5	4	3	2	1	4. لا تدعم الحكومة وظيفه استخدام نظم المعلومات المحاسبية.
5	4	3	2	1	5. تعتبر الحكومة استخدام نظم المعلومات المحاسبية مورد استراتيجي.
5	4	3	2	1	6. لا تدرك الحكومة الفرص المتاحة فيما يتعلق باستخدام نظم المعلومات المحاسبية.
5	4	3	2	1	7. تمارس الحكومة الضغط على الشركات للعمل واستخدام نظم المعلومات الحاسبية.
5	4	3	2	1	8. شركتنا تحت ضغط من الحكومة لاستخدام نظم المعلومات المحاسبية.
5	4	3	2	1	9. الحكومة تقدم لنا حوافز وتشجيع من اجل استخدام نظم المعلومات المحاسبية.
5	4	3	2	1	10. الحكومة توفر التسهيلات وبنية تحتية المناسبه لتمكين استخدام نظم المعلومات المحاسبية.

### 9. الشبكات (تأثير العلاقات الاجتماعية)

يقيس هذا العامل مستوى الاستعانة بكل من التاليه كمصدر للنصيحه والمشوره حول استخدام البرامج المحاسبية المحوسبه بصورة مكثفه اكثر. ان استخدام شركتكم لنظم المعلومات المحاسبية بصورة مكثفه نتيجته الاستعانه ب

غير مهم مطلقا	غير مهم	عادي	مهم	مهم كثيرا
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

### 10. ادراك حاله عدم التأكد في البيئه الخارجيه

يقيس هذا العامل مستوى ادراك شركتكم لحالة عدم التأكد في البيئه الخارجيه واثره على استخدام نظم المعلومات المحاسبية بصورة مكثفه اكثر

غير موافق بشده	غير موافق	غير متأكد	موافق	موافق بشده
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

#### الجزء الرابع: معلومات عن الشركة

هذا الجزء يحتوي على أسئلة عامه عن الشركة, يرجى وضع اشارته (١) في المكان الصحيح.

##### 11. يرجى تحديد الوضع القانوني للشركة

محدوده المسؤوليه ☐ شراكه ☐ ملكيه فرديه ☐

##### 12. الرجاء تحديد متى تم تأسيس الشركة .....

##### 13. الرجاء تحديد عدد الموظفين بدوام كامل الذين يعملون في الشركة بما فيهم المدير.....

##### 14. تحت اي من القطاعات الرئيسيه التاليه تدرج طبيعه عمل شركتكم (الرجاء وضع اشارته (١) في

##### المربع المناسب )

النسيج والالبسه والاحذيه	<input type="checkbox"/>	المعدات الكهربائيه	<input type="checkbox"/>
المنتجات البلاستيكيه والمطاطيه	<input type="checkbox"/>	المنتجات الغذائيه	<input type="checkbox"/>
الطباعة والورق والتعبئه	<input type="checkbox"/>	الاثاث والمنتجات الخشبيه	<input type="checkbox"/>
الصناعات النفطيه	<input type="checkbox"/>	الصناعات الكيماويه والدوائيه	<input type="checkbox"/>
التعدين والحفر	<input type="checkbox"/>	التبغ والسجائر	<input type="checkbox"/>
الحديد والصلب	<input type="checkbox"/>	الصناعات الانشائيه والبناء	<input type="checkbox"/>
اخرى, الرجاء التحديد..... <input type="checkbox"/>			

##### 15. يرجى تحديد عدد سنوات استخدام البرامج المحاسبية المحوسبه في شركتكم

2 سنه او اقل ☐ من 3 - 5 سنوات ☐ من 6 - 10 سنوات ☐ اكثر من 10 سنوات ☐

#### الجزء الخامس : البيانات الشخصية

يرجى وضع علامه (/) أو كتابة ردودكم على الأسئلة التاليه التي تتعلق بالبيانات الديموغرافيه

##### 16. يرجى تحديد المركز الوظيفي الحالي لك في الشركة

رئيس تنفيذي ☐ مدير ☐ مدير عام ☐ اخرى (يرجى تحديدها)..... ☐

##### 17. يرجى تحديد عدد السنوات في هذا المركز الوظيفي الحالي..... سنه.

##### 18. يرجى تحديد الجنس

ذكر ☐ انثى ☐

##### 19. يرجى تحديد الى اي الفئات العمرية التاليه تنتمي

اقل من 30 سنه ☐ 30 - 39 ☐ 40 - 49 ☐ 50 فما فوق ☐

##### 20. يرجى تحديد اعلى مؤهل علمي حصلت عليه

دبلوم او اقل ☐ بكالوريوس ☐ ماجستير ☐ دكتوراه ☐

شكرا لكم على مشاركتكم القيمه في هذه الاطروحه

عبدالوالي لطفي خصاونه

## Appendix B

### *Non-Response Bias Using Independent Samples Test Between Demographics Variables*

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
TOO	.210	.648	.221 .216	.825 .829	.825 .829
age	.015	.904	-.569 -.581	.570 .562	.570 .562
CS	.740	.391	-.212 -.208	.832 .835	.832 .835
TOI	3.699	.056	.055 .053	.956 .958	.956 .958
YOU	.937	.334	-.484 -.471	.629 .638	.629 .638
POSITION	1.968	.162	.554 .545	.580 .587	.580 .587
EXPER	2.441	.120	2.493 2.426	.014 .017	.014 .017
GENDER	.002	.963	-.023 -.023	.981 .981	.981 .981
RESAGE	.200	.655	2.398 2.453	.018 .015	.018 .015
EDUCATION	2.601	.109	-1.284 -1.275	.201 .205	.201 .205

## Appendix C

### Normality Test

		T_AISE	T_AISU	T_RA	T_CO	T_OM	T_OR
N	Valid	186	186	186	186	186	186
	Missing	0	0	0	0	0	0
Skewness		-.293	-.846	-.345	-.403	-.245	-.539
Std. Error of Skewness		.178	.178	.178	.178	.178	.178
Kurtosis		-.975	.991	-.508	.264	-.859	.497
Std. Error of Kurtosis		.355	.355	.355	.355	.355	.355

		T_CP	T_GS	T_IN	T_EU
N	Valid	186	186	186	186
	Missing	0	0	0	0
Skewness		-.385	-.062	-.393	-1.256
Std. Error of Skewness		.178	.178	.178	.178
Kurtosis		-.188	-.577	-.144	2.726
Std. Error of Kurtosis		.355	.355	.355	.355



## Appendix D

### Multicollinearity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.480	.623		-2.375	.019
	T_AISU	.453	.133	.189	3.422	.001
	T_RA	.614	.064	.590	9.627	.000
	T_CO	.093	.069	.079	1.349	.179
	T_OM	.121	.054	.126	2.220	.028
	T_OR	-.222	.108	-.132	-2.045	.042
	T_CP	-.363	.107	-.251	-3.396	.001
	T_GS	-.040	.092	-.022	-.435	.664
	T_IN	.394	.091	.275	4.320	.000
	T_EU	.209	.086	.156	2.442	.016

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	T_AISU	.766	1.305
	T_RA	.622	1.609
	T_CO	.688	1.453
	T_OM	.721	1.387
	T_OR	.560	1.785
	T_CP	.428	2.336
	T_GS	.949	1.054
	T_IN	.577	1.734
	T_EU	.569	1.757

## Appendix E

*Path Coefficients (Mean, STDEV, T-Values)/ The Main Effect Model*

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
AIS Usage -> AIS Effectiveness	0.383064	0.394366	0.054904	0.054904	6.976924
Compatibility -> AIS Usage	0.19359	0.186417	0.074802	0.074802	2.588049
Competitive Pressure -> AIS Usage	0.204346	0.201582	0.09599	0.09599	2.128831
Government Support -> AIS Usage	0.088576	0.107438	0.063533	0.063533	1.394159
Informal Networking -> AIS Usage	0.045613	0.048269	0.099095	0.099095	0.460302
Organizational Readiness -> AIS Usage	0.126822	0.137278	0.06982	0.06982	1.816418
Owner/Manager Commitment -> AIS Usage	0.09516	0.097739	0.065632	0.065632	1.449907
Relative Advantage -> AIS Usage	0.008513	0.027735	0.077131	0.077131	0.110374

## Appendix F

*Path Coefficients (Mean, STDEV, T-Values)/ The Moderating (Interaction) Effects*

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
AIS Usage * Environmental Uncertainty -> AIS Effectiveness	0.000774	-0.028671	0.080633	0.080633	0.0096



## Appendix G

*Non-Response Bias Using Independent Samples Test Between responded via email & by hand*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
						Sig. (2-tailed)
	N	F	Sig.	t	df	
TOO	28	.209	.648	.237	182	.813
	156			.245	38.408	.808
age	28	.545	.461	-1.353	177	.178
	151			-1.400	38.902	.169
CS	28	2.487	.117	1.175	184	.242
	158			1.125	35.985	.268
TOI	28	1.738	.189	.207	182	.837
	156			.221	39.769	.826
YOU	28	.077	.782	-.871	184	.385
	158			-.922	39.124	.362
POSITION	28	3.503	.063	-1.273	184	.205
	158			-1.427	41.474	.161
EXPER	28	.183	.669	-.153	181	.878
	155			-.156	37.911	.877
GENDER	28	3.320	.070	.976	181	.330
	155			.863	34.186	.394
RESAGE	28	.085	.771	.633	178	.527
	152			.653	38.688	.518
EDUCATION	28	.155	.694	.429	178	.668
	152			.408	36.148	.685